

CLAIMS

What is claimed is:

1 1. An apparatus for storing an identification data string used in identifying
2 characteristic of a device in a communications circuit, comprising:

3 a communications controller adapted for connection to a device and a
4 communications circuit; and

5 a programmable non-volatile memory for storing an identification data
6 string representative of the capabilities of the device.

1 2. The apparatus according to claim 1, wherein said programmable non-
2 volatile memory is an electrically erasable and programmable read only memory
3 (EEPROM).

1 3. The apparatus according to claim 1, wherein said programmable non-
2 volatile memory is programmable flash memory.

1 4. The apparatus according to claim 1, wherein said communications controller
2 generates a serial clock rate.

1 5. The apparatus according to claim 1, wherein the communications circuit is
2 wireless.

1 6. The apparatus according to claim 5, wherein the wireless communications
2 circuit is selected from the group consisting of infrared, Bluetooth and IrDA.

1 7. The apparatus according to claim 1, wherein the communications circuit is
2 wired.

1 8. The apparatus according to claim 7, wherein the wired communications
2 circuit is selected from the group consisting of ethernet, USB, firewire, DALI, LIN, J-1850
3 and IEEE-1451.

1 9. The apparatus according to claim 1, wherein serial data is transmitted from a
2 UART and serial data is received by the UART.

1 10. The apparatus according to claim 1, wherein said programmable non-
2 volatile memory is programmed with a first identification data string that is generic, and
3 said programmable non-volatile memory is adapted to be programmed with a second
4 identification data string that is associated with specific capabilities of the device.

1 11. The apparatus according to claim 1, wherein said communications controller
2 is selected from the group consisting of a microcontroller, a microprocessor, digital signal
3 processor, a programmable logic array and an application specific integrated circuit.

1 12. A method for storing an identification data string used in identifying
2 characteristic of a device in a communications circuit, said method comprising the steps
3 of:

4 providing a communications controller adapted for connection to a device
5 and a communications circuit;

6 providing a programmable non-volatile memory; and

1 13. The method according to claim 12, further comprising the steps of
2 transmitting serial data with a UART and receiving serial data with the UART.

1 14. The method according to claim 13, wherein a portion of the transmitted
2 serial data is the identification data string.

1 15. A system for communications between two or more devices, said system
2 comprising:

3 first device application logic adapted for sending transmit serial data at a
4 serial clock rate and receiving receive serial data at the serial clock rate;

5 a first communications controller coupled to said first device application
6 logic, said first communications controller encoding the transmit serial data and
7 decoding the receive serial data on a communication circuit;

8 second device application logic adapted for receiving the transmit serial
9 data at the serial clock rate and transmitting the receive serial data at the serial
10 clock rate:

11 a second communications controller coupled to said second device
12 application logic, said communications controller decoding the transmit serial
13 data and encoding the receive serial data on the communication circuit:

14 said first and second communications controllers having a first
15 programmable non-volatile memory for storing a first identification data string
16 representative of the capabilities of the first device;

17 said second communications controllers having a second programmable
18 non-volatile memory for storing a second identification data string representative
19 of the capabilities of the second device; and

20 wherein the first and second identification data strings are transmitted and
21 received between the first and second devices over the communications circuit.

1 16. The system according to claim 15, further comprising:

2 a first infrared transmitter and first encoder coupled to said first
3 communications controller, wherein said first infrared transmitter and first
4 encoder convert first transmit pulses from said first communications controller
5 into first infrared light pulses;

6 a second infrared transmitter and second encoder coupled to said second
7 communications controller, wherein said second infrared transmitter and second
8 encoder convert second transmit pulses from said second communications
9 controller into second infrared light pulses;

10 a first infrared receiver adapted for receiving the second infrared light
11 pulses and converting the second infrared light pulses into first receive pulses;

12 a second infrared receiver adapted for receiving the first infrared light
13 pulses and converting the first infrared light pulses into second receive pulses;

14 said first infrared receiver coupled to said first communications controller;

15 and

16 said second infrared receiver coupled to said second communications

17 controller.

1 17. The system according to claim 15, wherein said first and second device
2 application logic are selected from the group consisting of a microcontroller, a
3 microprocessor, digital signal processor, a programmable logic array and an application
4 specific integrated circuit.

1 18. The system according to claim 15, wherein said first and second device
2 application logic comprises a central processing unit, a random access memory and a read
3 only memory.